



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,365	04/22/2004	Chun-Hsien Lu	MR2561-153	7077
4586	7590	09/19/2005		
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			EXAMINER LE, DAVID D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/829,365	LU ET AL.	
	Examiner	Art Unit	
	David D. Le	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Handwritten signature/initials

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/829,365, filed on 22 April 2004. Claims 1-20 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Foreign Priority Document, received on 04/22/04

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:
 - Page 2, lines 12-14, the reference character "300A" has been used to designate both an automatic clutching device 300A and the automatic control device 300A.Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 1-20:

- Claim 1, line 6 recites the limitation “regular fuel”. It is unclear where the metes and bounds of this limitation should be. Page 5 of present specification, lines 7-8, provides “an engine using regular fuel as gasoline, diesel and the like.” This statement is not considered as a proper definition for the reason that it does not exclusively define what ‘regular fuel’ is actually consist of.
- Claims 4, 8, 11, 13, 17, and 20, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).
- Claim 6 recites the limitation “wherein the fuel driving device and the automatic clutching device are off as always and combined for power driving by means of the automatic clutching device.” It is unclear how the driving power can be

Art Unit: 3681

combined when the fuel driving device and the automatic clutch device are always off/disengaged.

- Claim 10 recites the limitation "the integrated power assistant device". There is insufficient antecedent basis for this limitation in the claim.
- Claims 11 and 20 recite the limitation "at least one power source of the continuously variable transmission device driving the two movable pulleys..." It is unclear whether this "at least one power source" is different from "another power source", as first recited on line 11 of claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent**

Application Publication No. US 2001/0024996 A1 to Sugano.

Claims 1-20:

Sugano (i.e., Figs. 1-2; paragraphs [0025] to [0066]) discloses a transmission unit for hybrid vehicle comprising:

- A first electric motor/generator (15);
- An internal combustion engine (2);
- An electromagnetic clutch (11) disposed between the internal combustion engine (2) and the first electric motor/generator (15) for controlling the clutching action therebetween;
- A continuously variable transmission device (13) having a primary pulley (14), a driven pulley (18), and a V-belt (19);
- Wherein the primary pulley (14) further includes a movable truncated con-shaped plate (22) and a stationary truncated cone-shaped plate (20);
- Wherein the driven pulley (18) further includes a movable truncated con-shaped plate (25) and a stationary truncated cone-shaped plate (24);
- Wherein the moveable and stationary cone-shaped plates of the primary pulley and the moveable and stationary cone-shaped plates of the driven pulley are arranged reversely and symmetrically (i.e., Fig. 2);
- A second electric motor (9) for driving the moveable cone-shaped plates of the primary and driven pulleys;
- A third electric motor/generator (3) capable of starting the internal combustion engine (2) and serving as a generator;

- A battery unit (5);
- A hybrid control unit (7) for controlling actions among the first electric motor/generator (15), the second electric motor (9), the third electric motor/generator (3), the internal combustion engine (2), the electromagnetic clutch (11), the battery unit (5), and the continuously variable transmission device (13);
- Wherein the internal combustion engine (2) is arranged, in series connection, between the electromagnetic clutch (11) and the third electric motor/generator (3) (i.e., Fig. 1);
- Wherein the first electric motor/generator (15), the internal combustion engine (2), the electromagnetic clutch (11), and the continuously variable transmission device (13) are arranged in series connection (i.e., Fig. 1);
- Wherein the first electric motor/generator (15) includes a motor control unit (7b);
- Wherein the internal combustion engine (2) includes an engine control unit (7c);
- Wherein the electromagnetic clutch (11) includes an automatic clutch control unit (7d); and
- Wherein the internal combustion engine (1), the electromagnetic clutch 11, and the first electric motor/generator (15) are in series connection for power driving but with a function of a parallel connection (i.e., paragraphs [0030] to [0049]).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Takahara et al. (U. S. Patent No. 6,009,365) teaches a vehicle drive system controller as shown in Fig. 1.
- Shimakura (U. S. Patent No. 6,135,919) teaches an automatic transmission as shown in Figs. 1-3.
- Sugano (U. S. Patent No. 6,656,069) teaches a transmission unit as shown in Figs. 1-2.
- Murakami et al. (U. S. Patent No. 6,524,217) teaches a control apparatus for controlling vehicle drive units as shown in Fig. 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ddl


CHARLES A. MARMOH
SUPERVISORY PATENT EXAMINER
ART UNIT 3681